



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,949	12/19/2005	Atsushi Ishikawa	05283/RPM	2040
1933	7590	03/28/2008		
FRISHAUF, HOLTZ, GOODMAN & CHICK, PC			EXAMINER	
220 Fifth Avenue			NGUYEN, DONGHAID	
16TH Floor				
NEW YORK, NY 10001-7708			ART UNIT	PAPER NUMBER
			3729	
			MAIL DATE	DELIVERY MODE
			03/28/2008 PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/532,949

Applicant(s)

ISHIKAWA ET AL.

Examiner

DONGHAI D. NGUYEN

Art Unit

3729

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2008.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
4a) Of the above claim(s) 8-15 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-7 and 16-19 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 27 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-85/08)
Paper No(s)/Mail Date See Continuation Sheet
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

Continuation of Attachment(s) 3. Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :4/27/05; 11/23/05; 7/19/07; 7/26/07; 11/8/07.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I, claims 1-7 and 16-19 in the reply filed on February 4, 2008 is acknowledged. Thus claims 8-15 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Specification

2. The abstract of the disclosure is objected to because it exceeds 150 words in length. Correction is required. See MPEP § 608.01(b).

Claim Objections

3. Claims 1, 2, 6 and 7 are objected to because of the following informalities: "its surface" (claims 1 and 2, lines 3-4) should be: --a surface of the plate--; "its surface" (claims 1 and 2, line 6) should be: --a surface of the printed circuit board--; "its surface" (claim 6, line 3 and claim 7, line 4) should be: --a surface of the printed circuit board--; and "its surface" (claim 6, line 5 and claim 7, line 7) should be: --a surface of the jig--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 6 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 6 and 7 are method claims; however, there is no positive method step recites in the claims. Therefore, it is unclear as to how the printed circuit board being conveyed.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-3, 5-7 and 16 are rejected under 35 U.S.C. 102(b) as anticipated by US Patent 6,063,647 to Chen et al or, in the alternative, under 35 U.S.C. 103(a) as obvious over Chen et al in view of Applicants Admitted Prior Art (AAPA)

Regarding claim 1 Chen et al disclose a jig (22) comprising: a plate (22) having a weak-adherence adhesive pattern (36) on its surface (see Fig. 1c); and a printed circuit board (21) having a conductive portion (25) and a non-conductive portion on its surface (see Fig. 1a), or a conductive material laminated plate for manufacturing said printed circuit board, said printed circuit board (21) or said conductive material laminated plate being placed and held on the surface of said plate (22), wherein said weak-adherence adhesive pattern (36) is formed at a position corresponding to said non-conductive portion (see Figs. 1d and 5e).

Regarding claim 2, Chen et al disclose a jig (22) for holding and conveyance comprising: a plate (22) having a weak-adherence adhesive layer (36) on its surface; and a printed circuit board (21) has a conductive portion (25) and a non-conductive portion on its surface (see Fig. 1a), or a conductive material laminated plate for manufacturing said printed circuit board, said printed circuit board (21) or said conductive material laminated plate being placed and held on the surface of said plate (22, see Fig. 1d), wherein a weak-adherence adhesive pattern (36) subjected to surface roughening (see Fig. 1b or 4b-c) is formed on a surface of said weak-adherence adhesive layer at a position corresponding to said conductive portion (see Figs. 1d and 5e).

Regarding claims 6 and 7, as best understood, Chen et al disclose methods of conveying a printed circuit board, electroconductive material laminated plate, (21) having a conductive portion (25) and a non-conductive portion on its surface (see Fig. 1a) while holding said printed circuit board on a jig (22) for holding and conveyance, said jig (22) having a weak-adherence adhesive pattern (36) provided on its surface, wherein when said printed circuit board, said electroconductive material laminated plate (21), is held on the surface of said jig (22) for holding and conveyance, said non-conductive portion is placed by being restricted to a surface of said weak-adherence adhesive pattern (see Figs. 1d and 5e).

Chen et al inherently disclose the adhesive pattern is weak-adherence, because the adhesive can be easily removed (see Fig. 1b or 4b-c). If Applicants argue that the adhesive of Chen et al is not weak-adherence adhesive pattern. AAPA disclose the use of weak-adherence adhesive pattern for holding the substrate to the jig (see page 2, last paragraph). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was

made to modify the invention of Chen et al by utilized the weak-adherence adhesive patent as taught by AAPA for holding the substrate to the jig.

Regarding claims 3, 5 and 16, Chen et al disclose the adhesive pattern has a plurality of thickness regions differing in thickness from the surface of said plate (see Fig. 5d) and a non-adhesive pattern is formed at a position corresponding to said conductive portion on the surface of said weak-adherence adhesive layer (see Fig. 1d).

8. Claims 4 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al or Chen et al/AAPA as applied above further in view of US Patent 5,352,314 to Coplan.

Chen et al or Chen/AAPA do not disclose a plurality of adhesive strength regions differing in adhesive strength. Coplan teaches the adhesive strength between layers can be controlled (different) for properly holding the layers (see Col. 4, lines 53-64). therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Chen et al by utilized the weak-adherence adhesive patent having plurality of adhesive strength regions differing in adhesive strength as taught by Coplan for properly holding the substrate and jig together.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Prior art references cited for their teachings of a jig for holding the printed circuit board.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DONGHAI D. NGUYEN whose telephone number is (571)272-4566. The examiner can normally be reached on Monday-Friday (9:00-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter D. Vo can be reached on (571)-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DN
March 26, 2008

/Donghai D. Nguyen/
Primary Examiner, Art Unit 3729